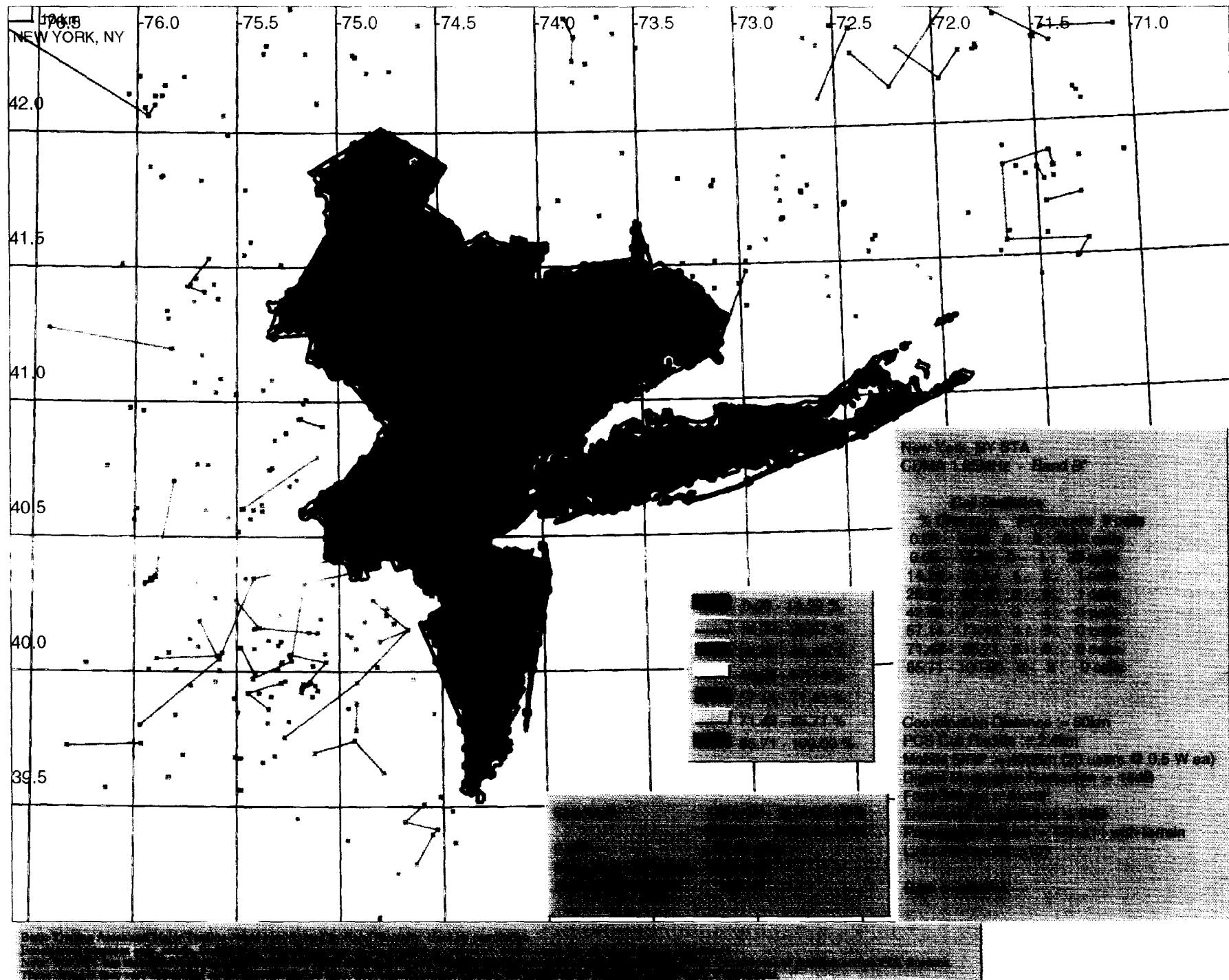


Figure 3.5-1 New York BTA, 1.25 MHz CDMA, 1850-1860/1930-1940 MHz, No Links Removed



Figure 3.5-2 New York BTA, 1.25 MHz CDMA, 1850-1860/1930-1940 MHz, 21 Links Removed



**Figure 3.5-3** New York BTA, 1.25 MHz CDMA, 1860-1870/1940-1950 MHz, No Links Removed

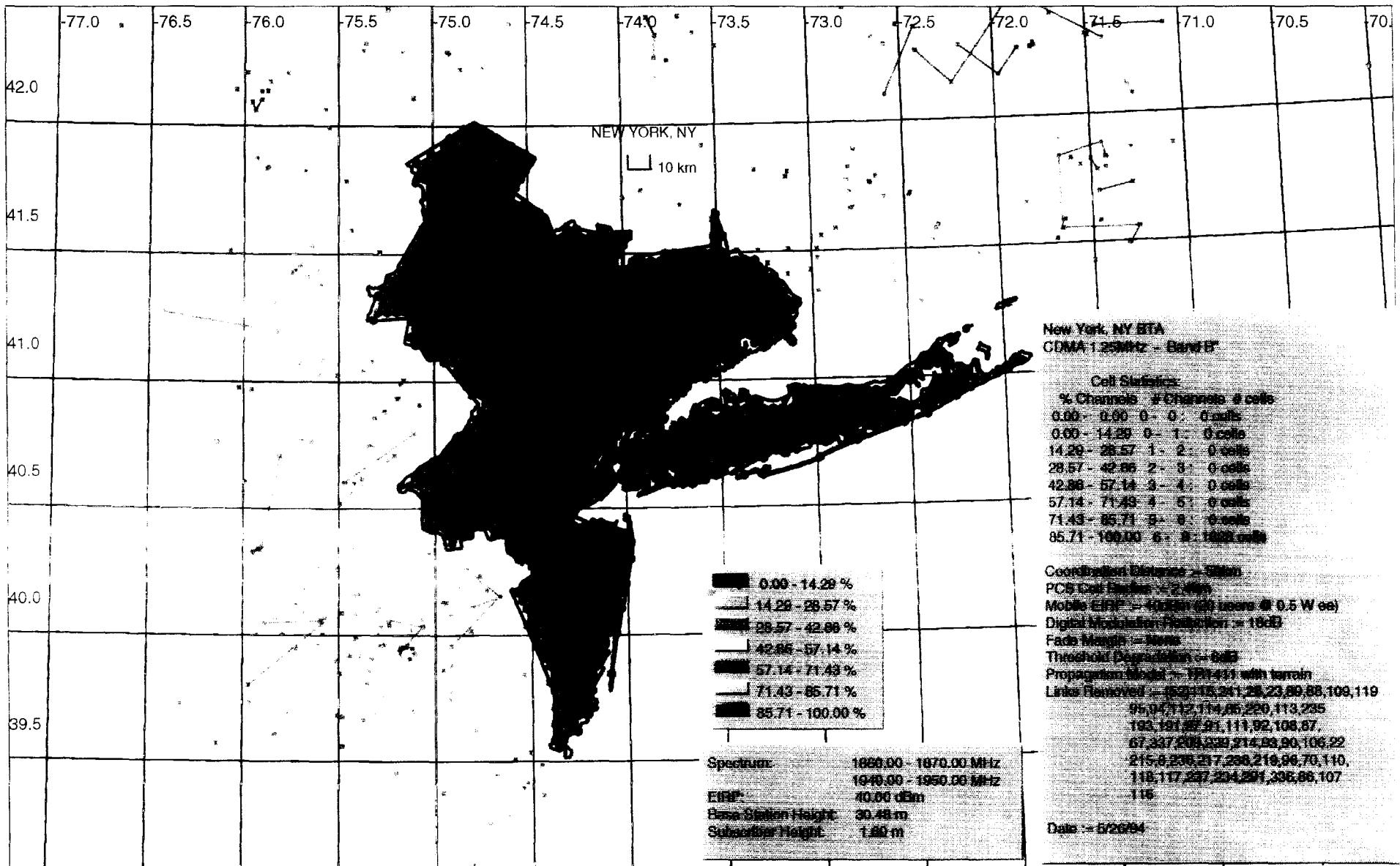


Figure 3.5-4 New York BTA, 1.25 MHz CDMA, 1860-1870/1940-1950 MHz, 52 Links Removed

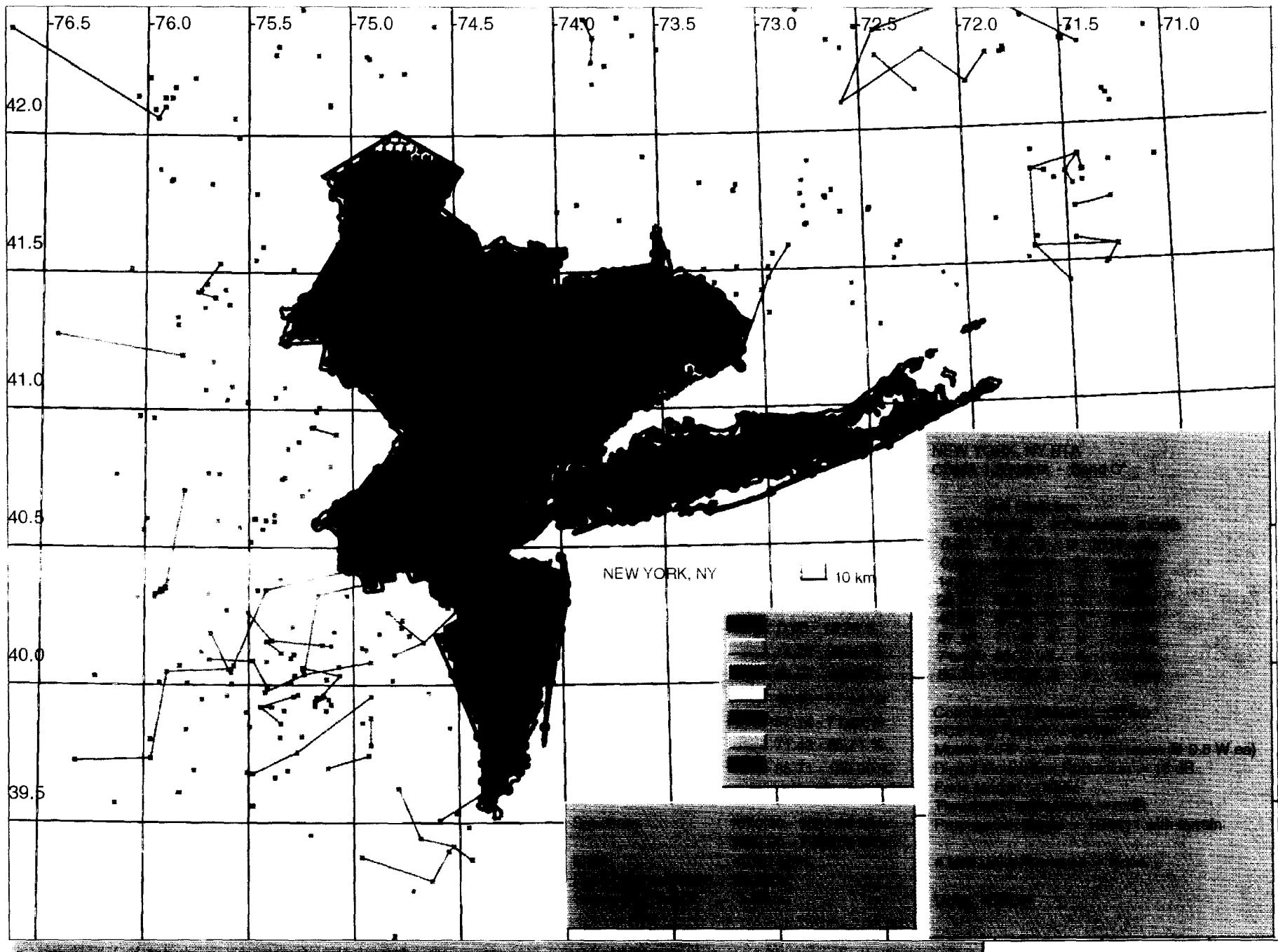


Figure 3.5-5 New York BTA, 1.25 MHz CDMA, 1870-1880/1950-1960 MHz, No Links Removed



Figure 3.5-6 New York BTA, 1.25 MHz CDMA, 1870-1880/1950-1960 MHz, 45 Links Removed

### **3.6 Existing Spectrum Allocation - 200 kHz TDMA**

This section presents the results of the existing PCS spectrum allocations for the 200 kHz TDMA PCS system technology. The following allocations are analyzed:

- 1850-1865/1930-1945 MHz
- 1865-1880/1945-1960 MHz
- 1880-1890/1960-1970 MHz.

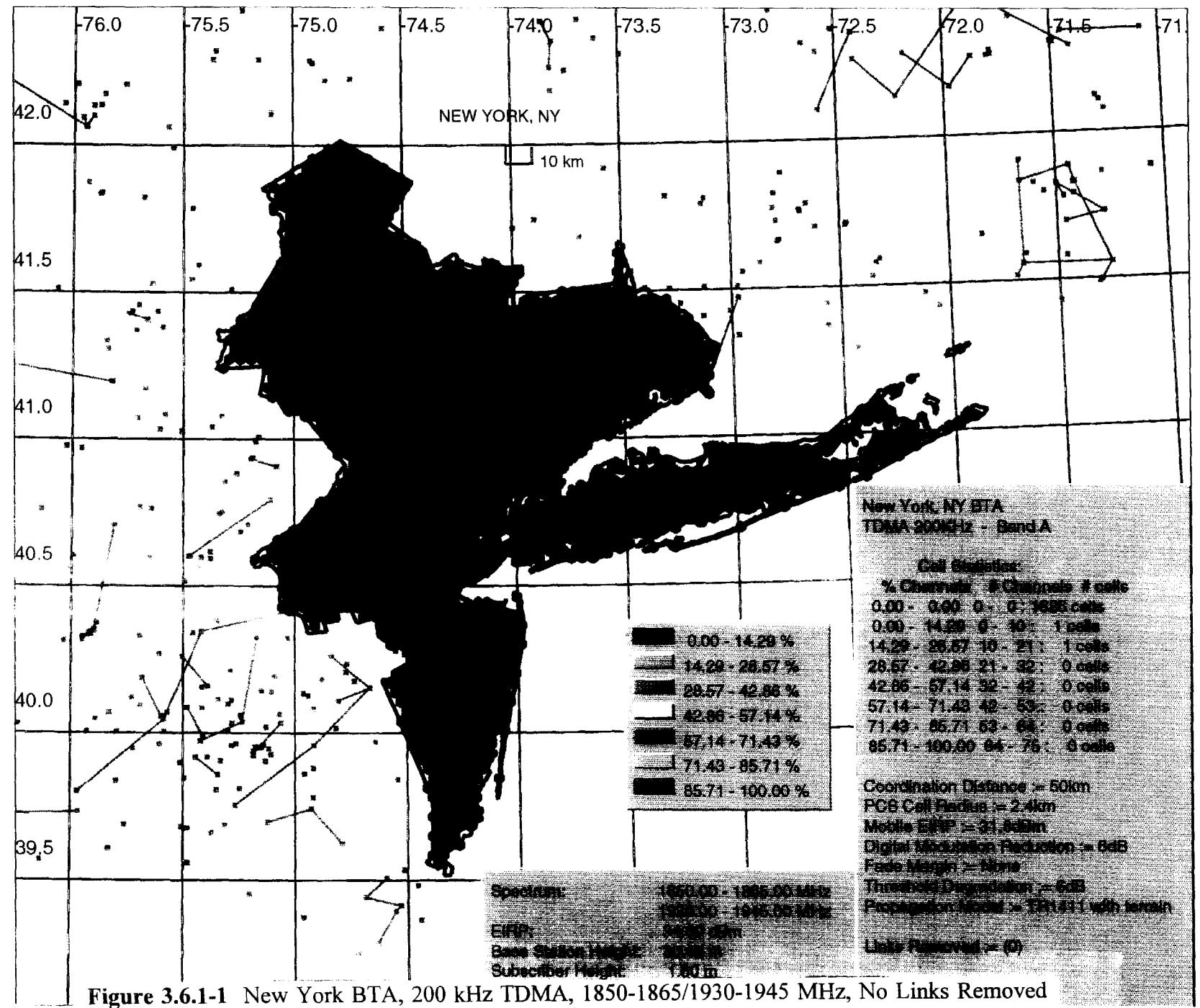
This spectrum sharing test used the following parameters:

- Uniform Cell Distribution: 2.4 km radius
- Base Station EIRP: 34.8 dBm
- Base Station Height: 30 m
- Mobile Station EIRP: 31.8 dBm
- Mobile Station Height: 1.6 m
- Coordination Distance: 50 km
- Fade Margin: None
- Digital Modulation Reduction: 18 dB
- Interference Criteria: 6 dB Threshold Degradation
- PCS System Technology: 200 kHz TDMA.

#### **3.6.1 1850-1865/1930-1945 MHz Allocation - TDMA**

Figure 3.6.1-1 shows the initial result for the existing 1850-1865/1930-1945 MHz allocation using the 200 kHz TDMA and the assumptions stated. There are 1628 cells with no spectrum available.

Figure 3.6.1-2 shows the result of removing 47 microwave links to meet the 25 % spectrum availability requirement. This analysis considered 77 microwave links in the analysis band (+/- 10 MHz).



**Figure 3.6.1-1** New York BTA, 200 kHz TDMA, 1850-1865/1930-1945 MHz, No Links Removed

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Note: The FCC has made no changes to the 47 CFR regarding the use of the term "basic trading area". The FCC has the authority to change the number of granting custom FCC Licenses.  
These changes may vary depending on the specific license type. FCC 47 CFR 1.401(b)(2)(iii) and 1.401(b)(2)(iv).

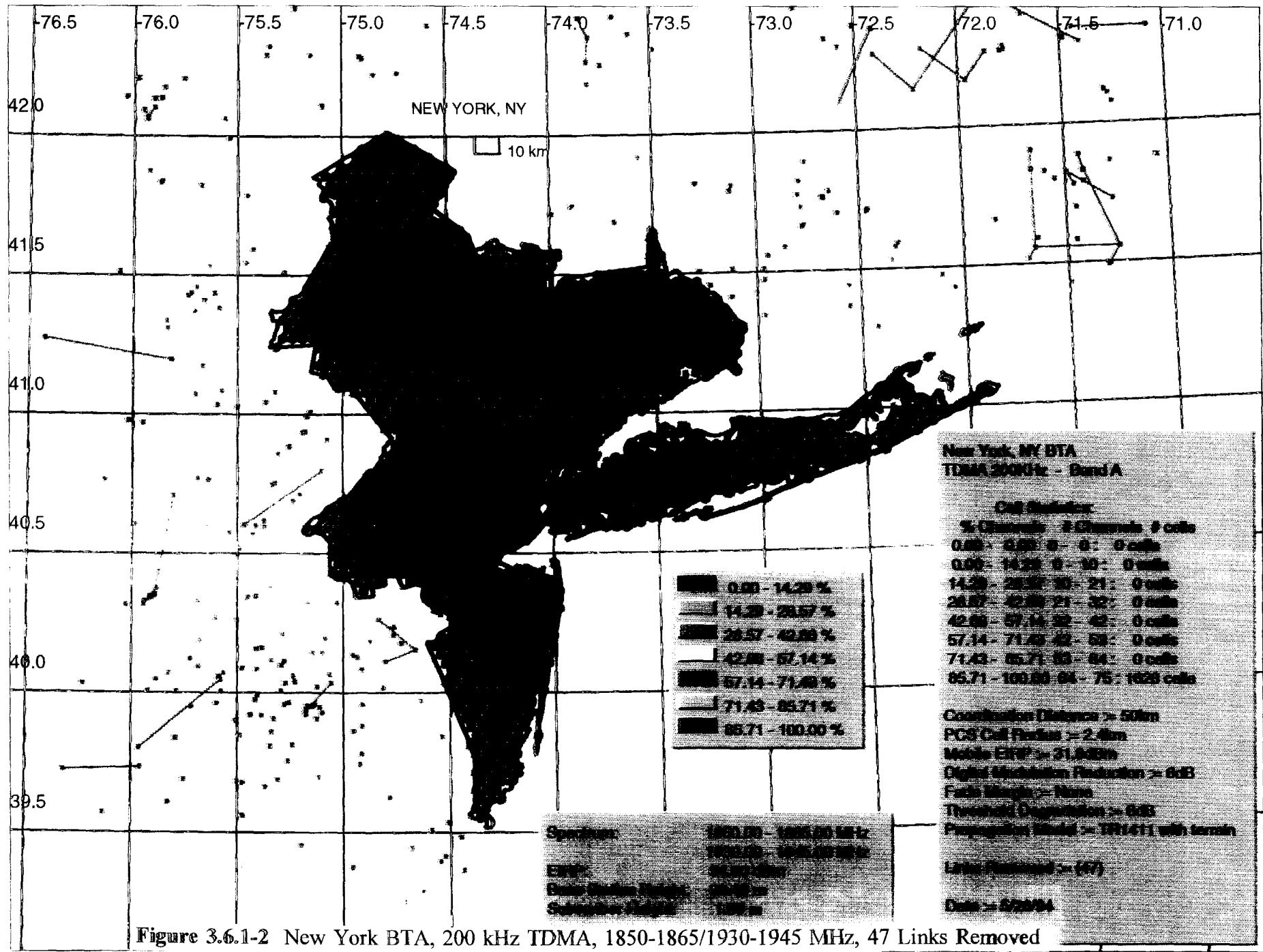


Figure 3.6.1-2 New York BTA, 200 kHz TDMA, 1850-1865/1930-1945 MHz, 47 Links Removed

### **3.6.2 1865-1880/1945-1960 MHz Allocation - TDMA**

This test used the same parameters as the previous test:

- Uniform Cell Distribution: 2.4 km radius
- Base Station EIRP: 34.8 dBm
- Base Station Height: 30 m
- Mobile Station EIRP: 31.8 dBm
- Mobile Station Height: 1.6 m
- Coordination Distance: 50 km
- Fade Margin: None
- Digital Modulation Reduction: 18 dB
- Interference Criteria: 6 dB Threshold Degradation
- PCS System Technology: 200 kHz TDMA.

Figure 3.6.2-1 shows the initial results for the existing 1865-1880/1945-1960 MHz allocation using the TDMA assumptions. There are 1587 (out of 1628) cells with no spectrum available.

Figure 3.6.2-2 shows the result of removing 62 microwave links to meet the 25 % spectrum availability requirement. There were a total of 110 microwave links considered within +/- 10 MHz of the allocation.

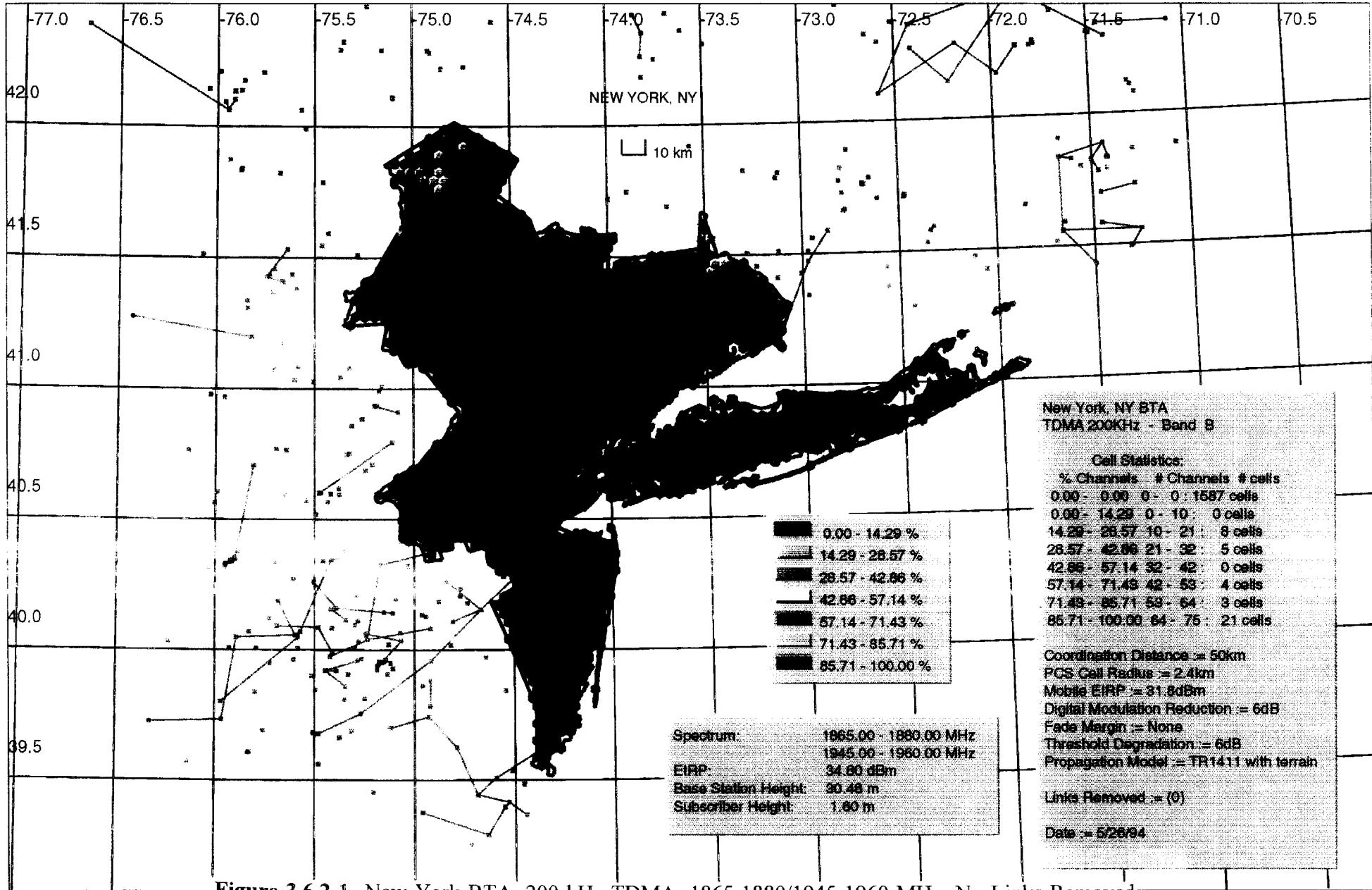


Figure 3.6.2-1 New York BTA, 200 kHz TDMA, 1865-1880/1945-1960 MHz, No Links Removed

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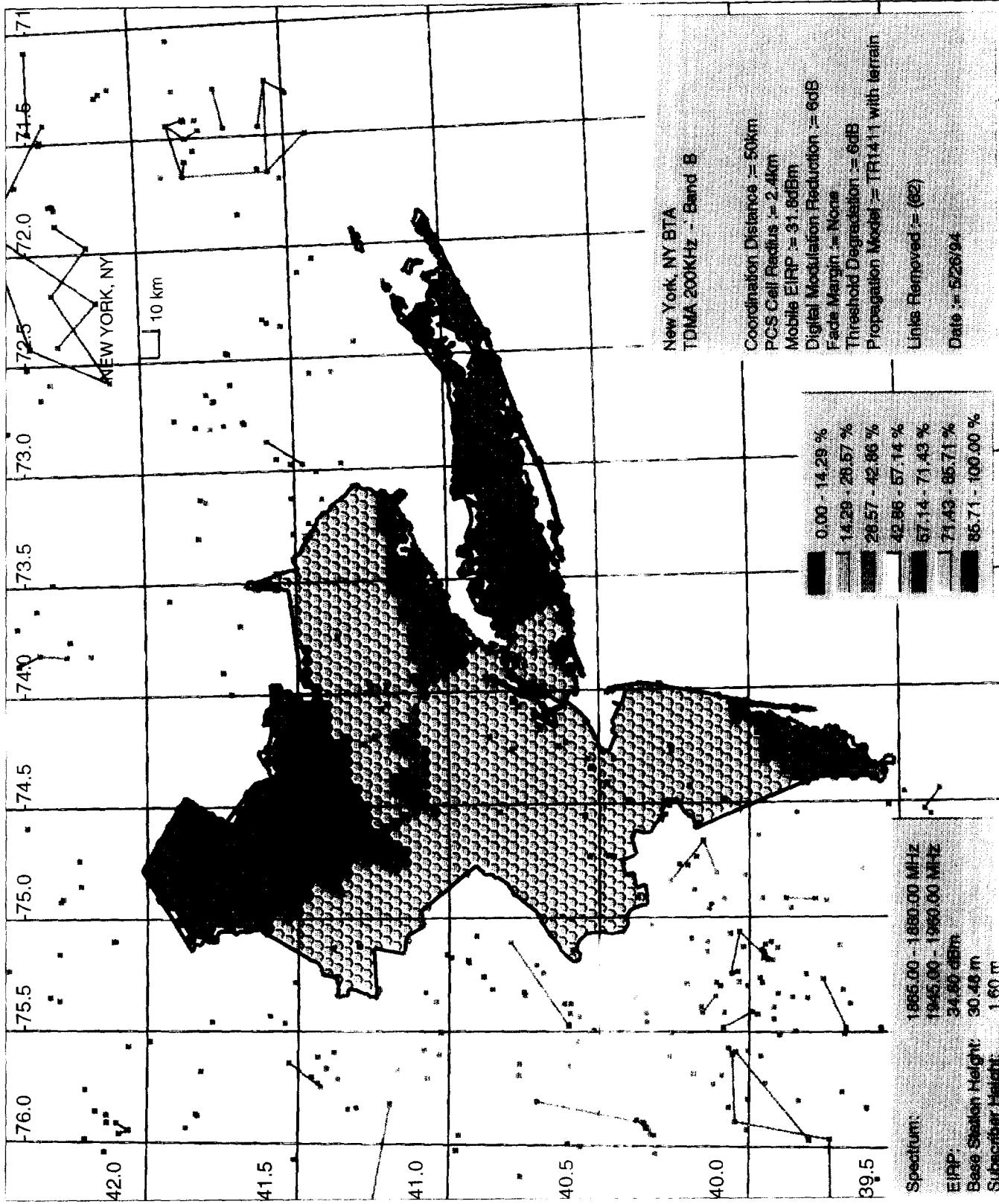


Figure 3.6.2-2 New York BTA, 200 kHz TDMA, 1865-1880/1945-1960 MHz, 62 Links Removed

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Note: The FCC has authority to change channel assignments and/or make other changes to the TDMA system.  
These changes may vary depending on the specific license type or permit issued by the FCC for particular license type, if applicable.

### **3.6.3 1880-1890/1960-1970 MHz Allocation - TDMA**

This test used the same parameters as the previous test:

- Uniform Cell Distribution: 2.4 km radius
- Base Station EIRP: 34.8 dBm
- Base Station Height: 30 m
- Mobile Station EIRP: 31.8 dBm
- Mobile Station Height: 1.6 m
- Coordination Distance: 50 km
- Fade Margin: None
- Digital Modulation Reduction: 18 dB
- Interference Criteria: 6 dB Threshold Degradation
- PCS System Technology: 200 kHz TDMA.

Figure 3.6.3-1 repeats the same process for the existing 1880-1890/1960-1970 MHz allocation. There are 1611 (out of 1628) cells with no spectrum available.

Figure 3.6.3-2 shows the result of removing 59 microwave links to meet the 25 % spectrum availability.

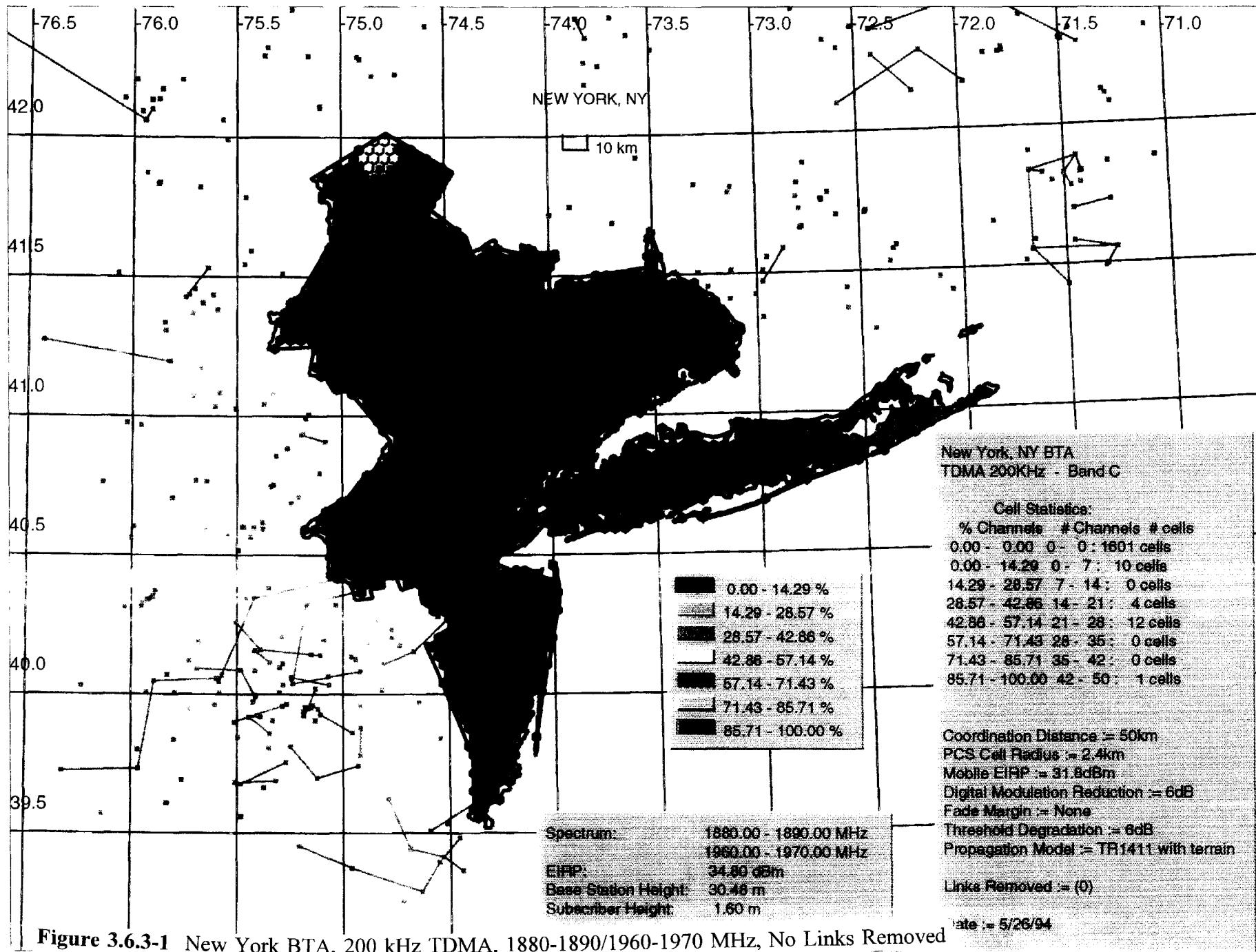


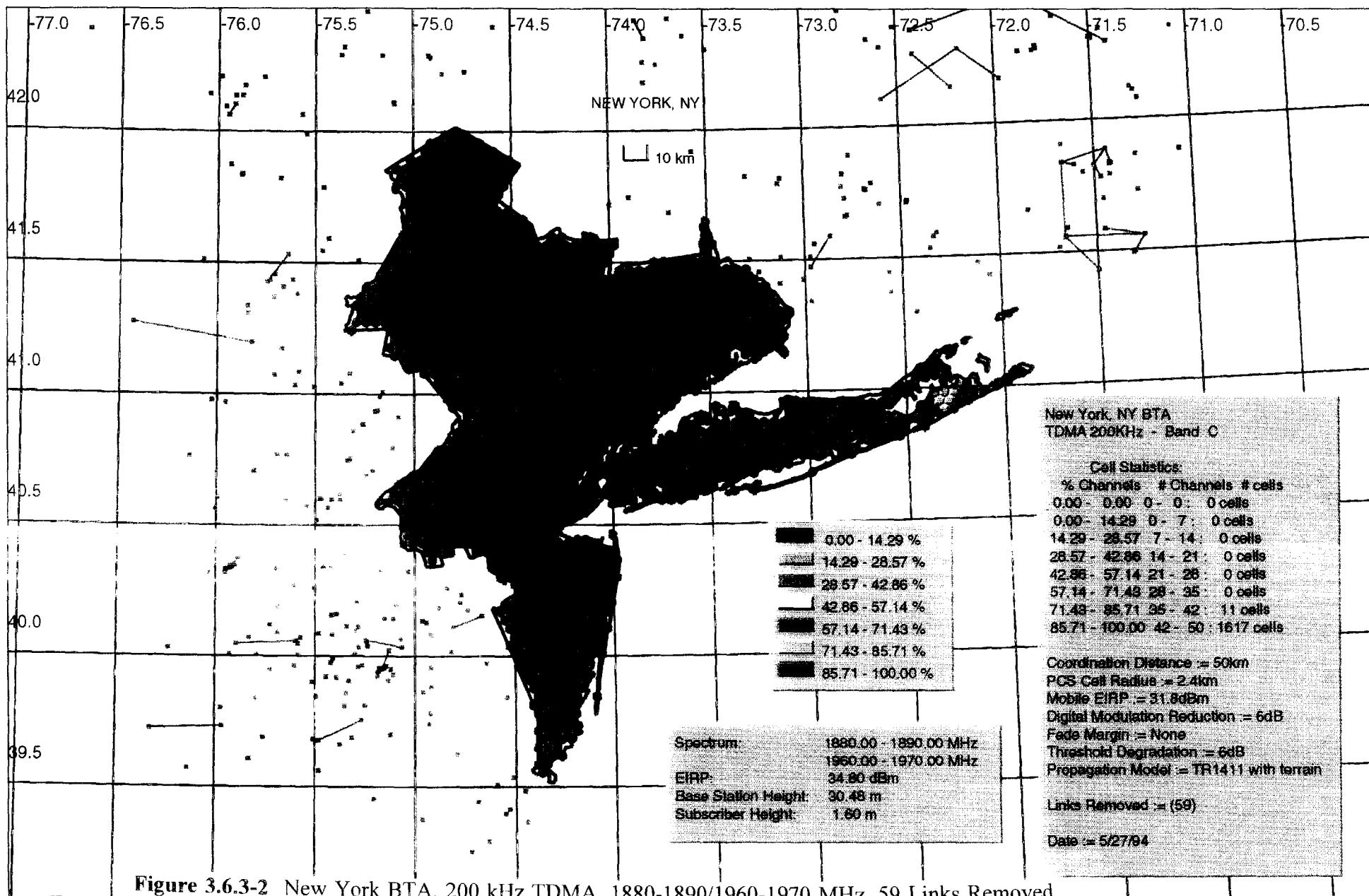
Figure 3.6.3-1 New York BTA, 200 kHz TDMA, 1880-1890/1960-1970 MHz, No Links Removed

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**Figure 3.6.3-2** New York BTA, 200 kHz TDMA, 1880-1890/1960-1970 MHz, 59 Links Removed

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### **3.7 Proposed Three 30 MHz Allocations - 200 kHz TDMA**

This section presents the results of the proposed three 30 MHz PCS spectrum allocations. The following allocations are analyzed:

- 1850-1865/1930-1945 MHz
- 1865-1880/1945-1960 MHz
- 1880-1895/1960-1975 MHz.

This spectrum sharing test used the following parameters:

- Uniform Cell Distribution: 2.4 km radius
- Base Station EIRP: 34.8 dBm
- Base Station Height: 30 m
- Mobile Station EIRP: 31.8 dBm
- Mobile Station Height: 1.6 m
- Coordination Distance: 50 km
- Fade Margin: None
- Digital Modulation Reduction: 18 dB
- Interference Criteria: 6 dB Threshold Degradation
- PCS System Technology: 200 kHz TDMA.

These are the same parameters used in the previous section. The first two allocations are the same in both cases. The 1850-1865/1930-1945 MHz allocation had no spectrum available in the initial run and required the relocation of 47 microwave links to meet the 25% spectrum availability goal. The 1865-1880/1945-1960 MHz allocation had no spectrum available in 1587 cells and needed to relocate 62 links to meet the 25 % goal.

The proposed 1880-1895/1960-1975 MHz allocation has no spectrum available in 1534 cells and requires the relocation of 52 microwave links to meet the 25 % spectrum availability objective. There were a total of 106 microwave links considered in the analysis. These results are presented in Figures 3.7-1 and 3.7-2.

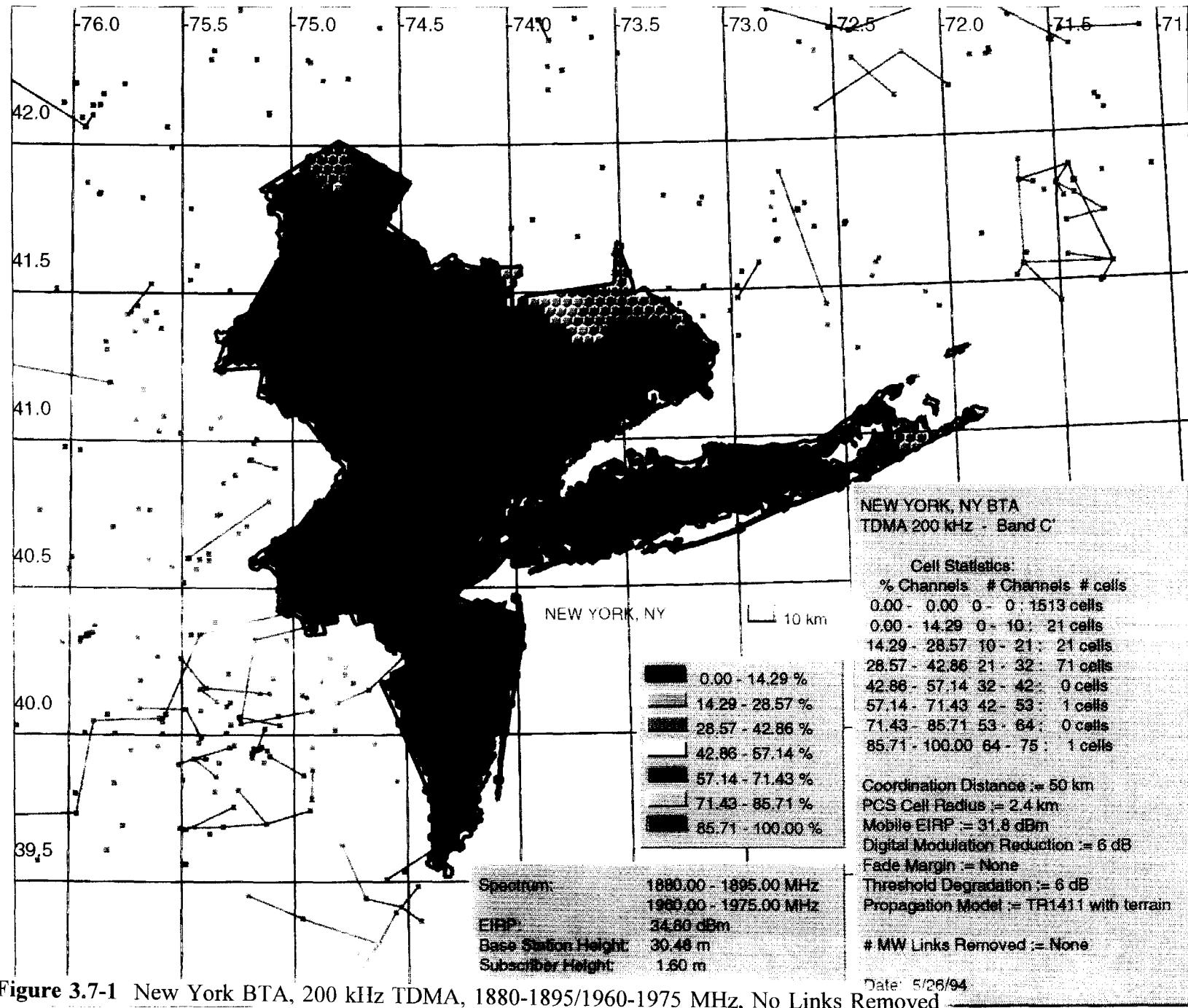
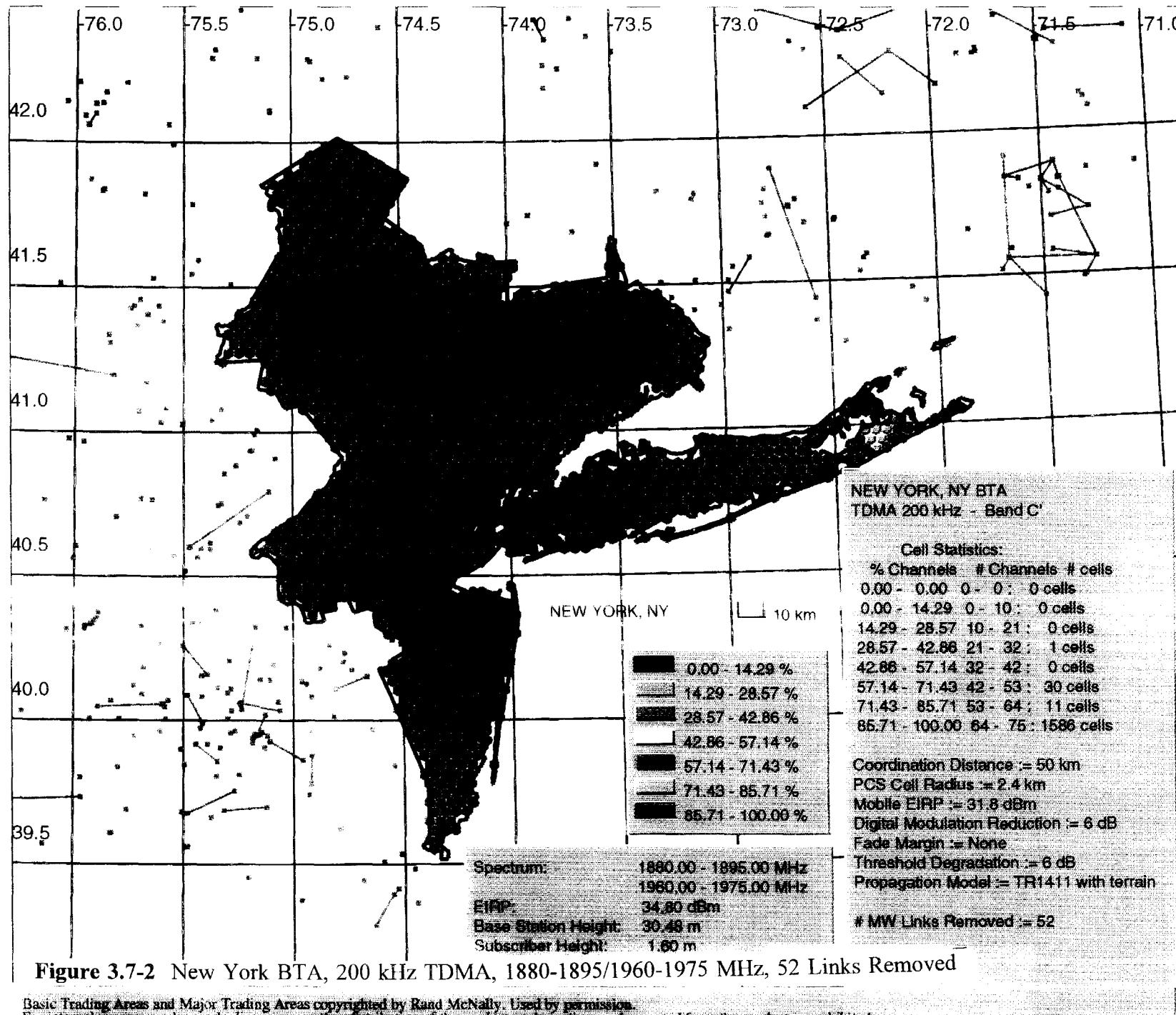


Figure 3.7-1 New York BTA, 200 kHz TDMA, 1880-1895/1960-1975 MHz, No Links Removed

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Note: The FCC has mandated certain changes to the 497 basic trading areas and 47 major trading areas (as defined by Rand McNally) for purposes of granting certain FCC licenses. These changes may vary depending on the specific licensee type. User should contact the FCC for details on its particular license type, if applicable.



**Figure 3.7-2** New York BTA, 200 kHz TDMA, 1880-1895/1960-1975 MHz, 52 Links Removed

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### **3.8 Proposed Four 20 MHz Allocations - 200 kHz TDMA**

This section presents the results of the proposed four 20 MHz PCS spectrum allocations. The following allocations are analyzed:

- 1850-1860/1930-1940 MHz
- 1860-1870/1940-1950 MHz
- 1870-1880/1950-1960 MHz
- 1880-1890/1960-1970 MHz.

This spectrum sharing test used the following parameters:

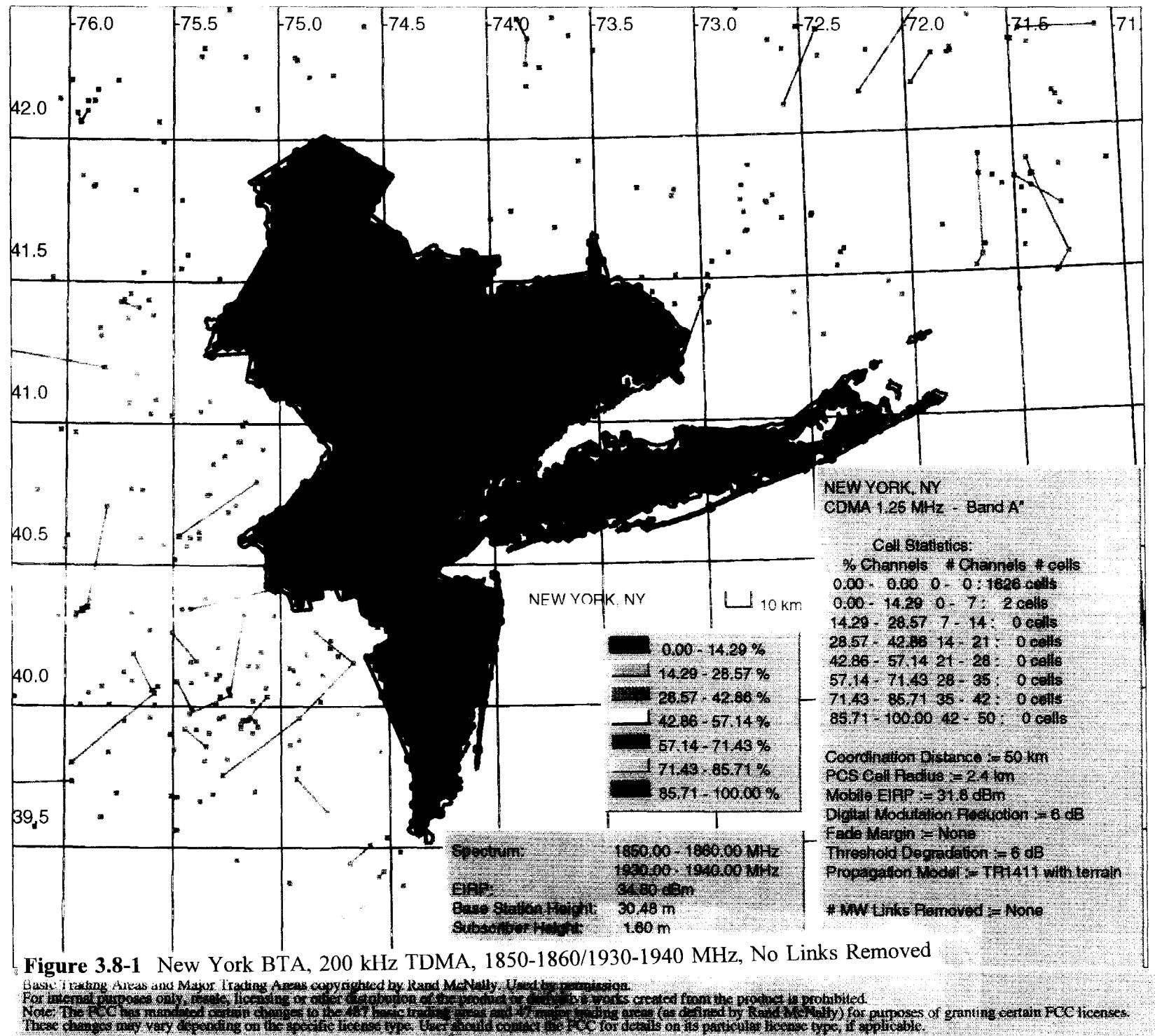
- Uniform Cell Distribution: 2.4 km radius
- Base Station EIRP: 34.8 dBm
- Base Station Height: 30 m
- Mobile Station EIRP: 31.8 dBm
- Mobile Station Height: 1.6 m
- Coordination Distance: 50 km
- Fade Margin: None
- Digital Modulation Reduction: 18 dB
- Interference Criteria: 6 dB Threshold Degradation
- PCS System Technology: 200 kHz TDMA.

These are the same parameters used in the previous sections. The results for the fourth 20 MHz allocation were presented in the Section 3.6.3. That particular allocation had no spectrum available initially for 1611 cells and required the relocation of 59 microwave links to meet the 25 % availability goal.

Figure 3.8-1 shows the results for the 1850-1860/1930-1940 MHz allocation. There is no spectrum available in the initial plot. A total of 21 microwave links (out of 55) were relocated to meet the 25 % requirement. This is shown in Figure 3.8-2.

Figure 3.8-3 shows the results for the 1860-1870/1940-1950 MHz allocation. There is no spectrum available for 1588 cells in the initial plot. A total of 43 microwave links (out of 83) were relocated to meet the 25 % requirement. This result is shown in Figure 3.8-4.

Figure 3.8-5 shows the results for the 1870-1880/1950-1960 MHz allocation. There is no spectrum available for the 1598 cells in the initial plot. A total of 37 (out of 94) were relocated to meet the 25 % requirement. This is shown in Figure 3.8-6.



**Figure 3.8-1** New York BTA, 200 kHz TDMA, 1850-1860/1930-1940 MHz, No Links Removed

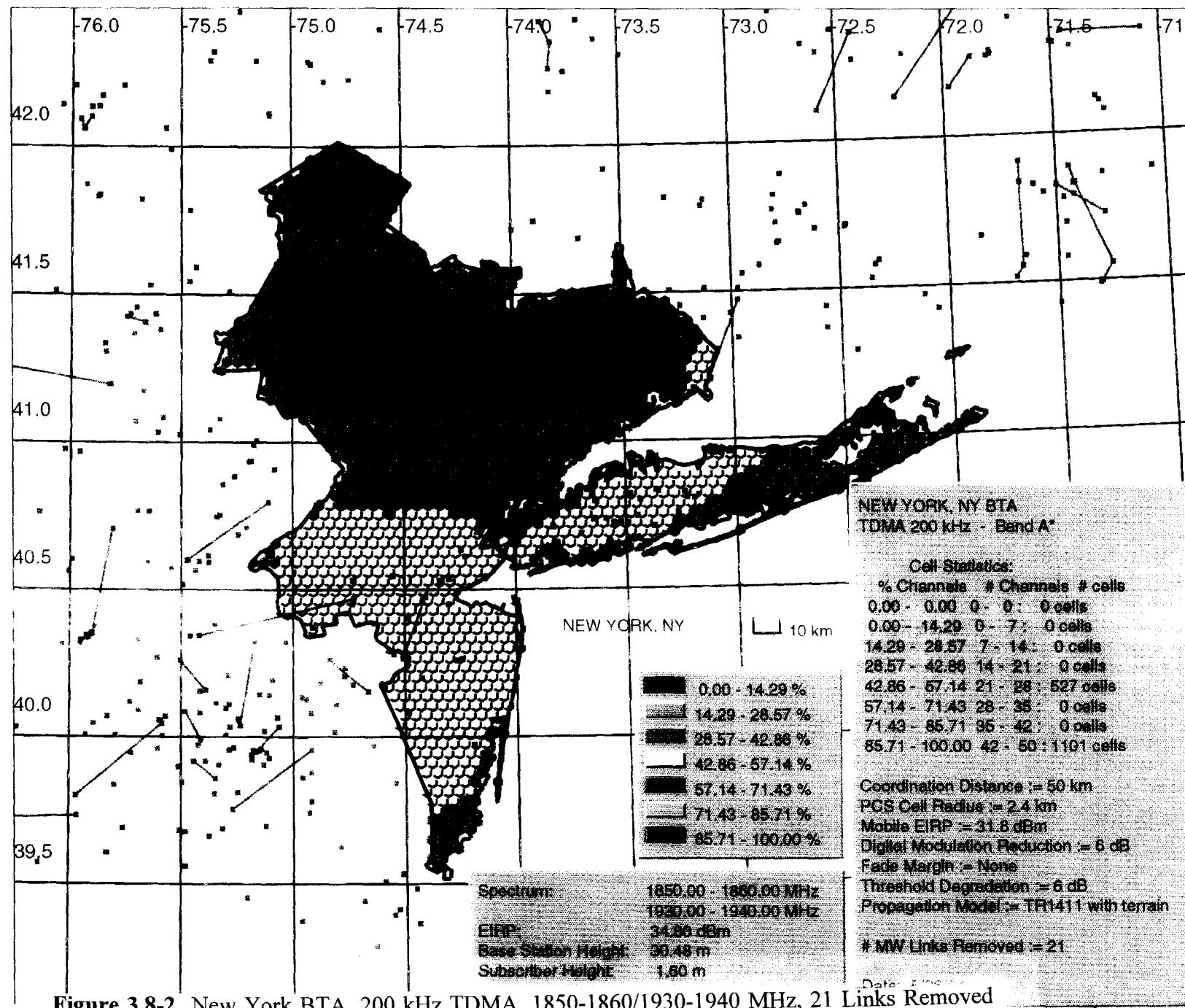


Figure 3.8-2 New York BTA, 200 kHz TDMA, 1850-1860/1930-1940 MHz, 21 Links Removed

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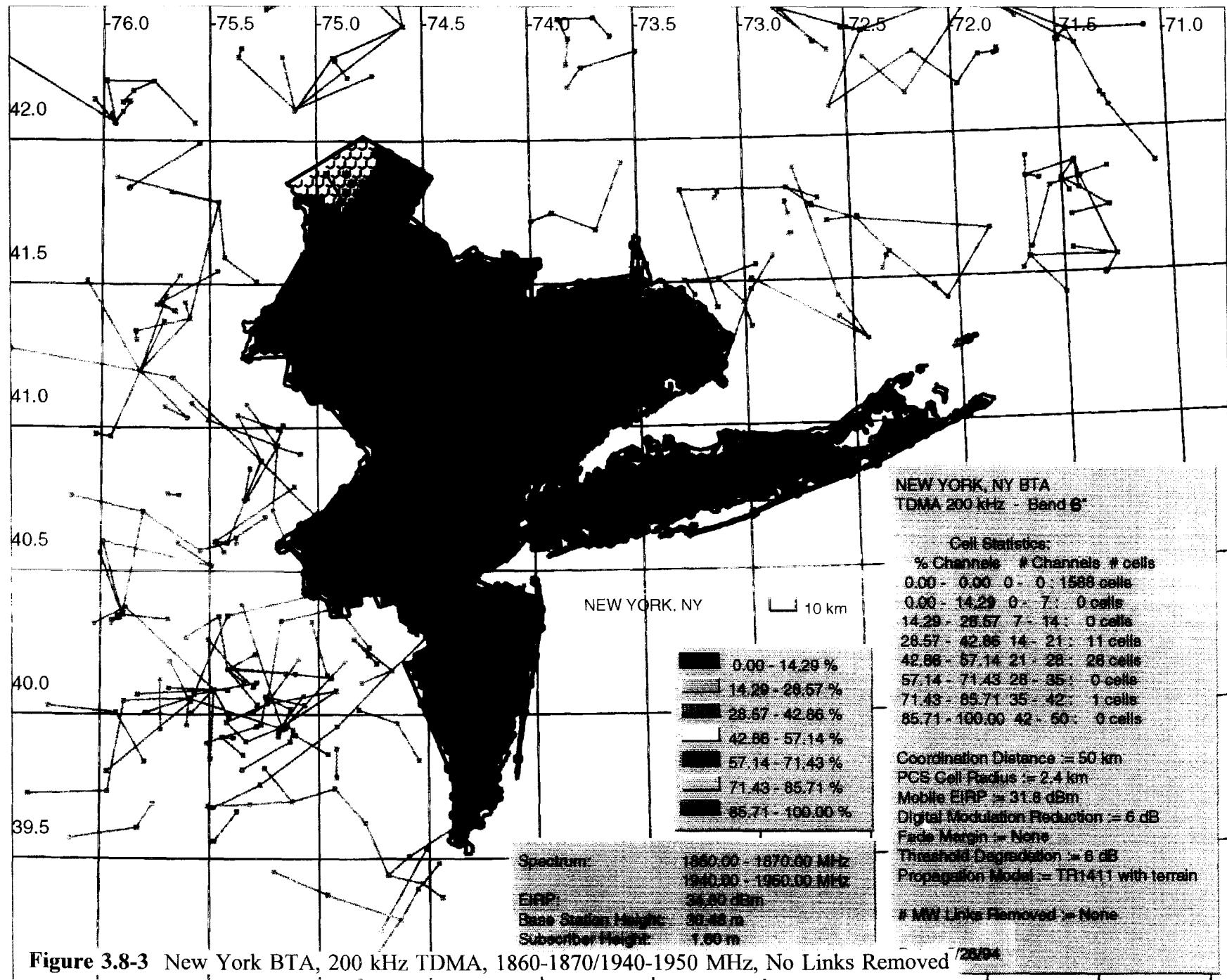
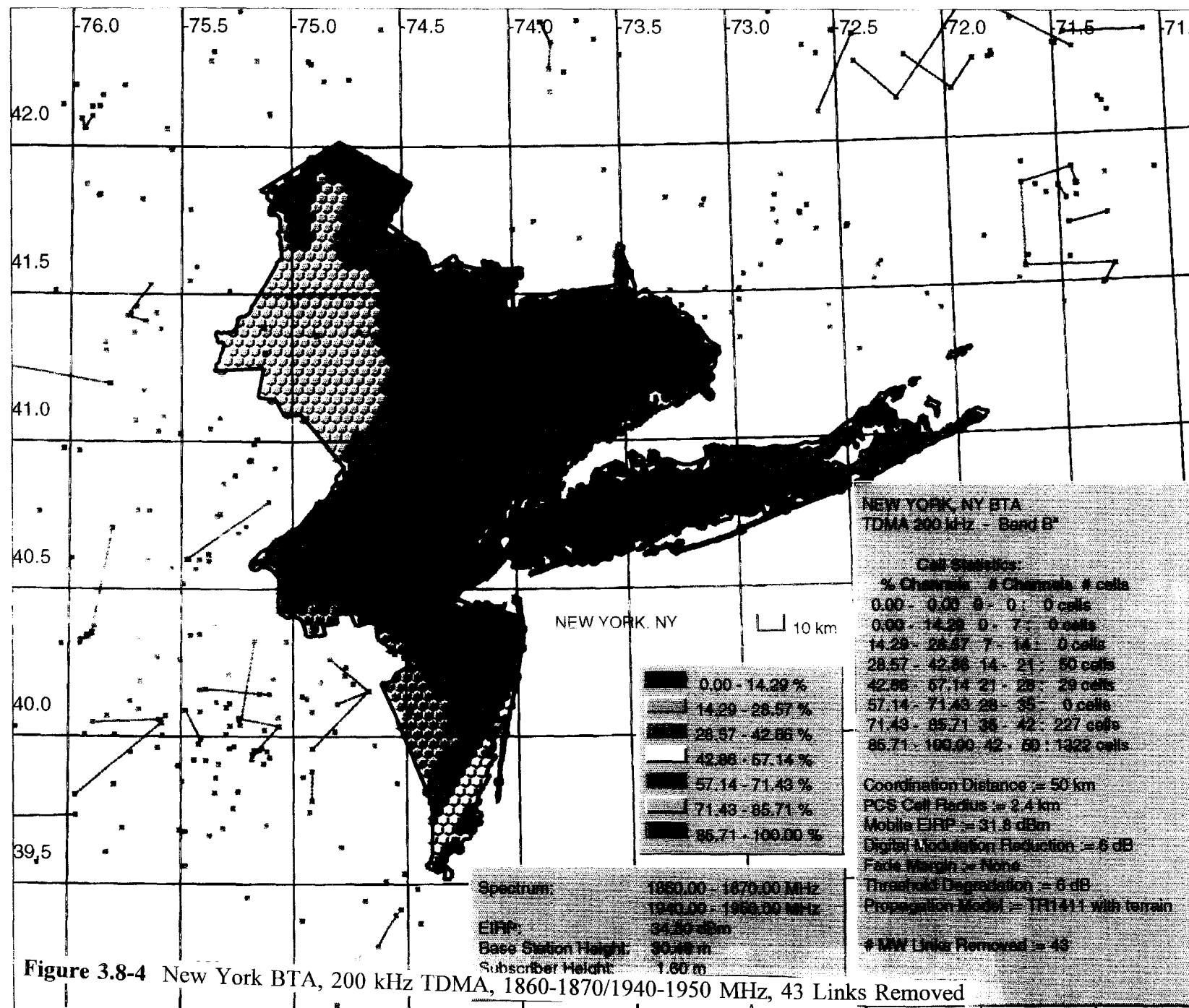


Figure 3.8-3 New York BTA, 200 kHz TDMA, 1860-1870/1940-1950 MHz, No Links Removed

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Note: The FCC has mandated certain changes to the 207 basic trading areas used for license applications by mobile carriers for purposes of granting certain FCC licenses. These changes may vary depending on the specific license type. Use these maps only as a general reference.

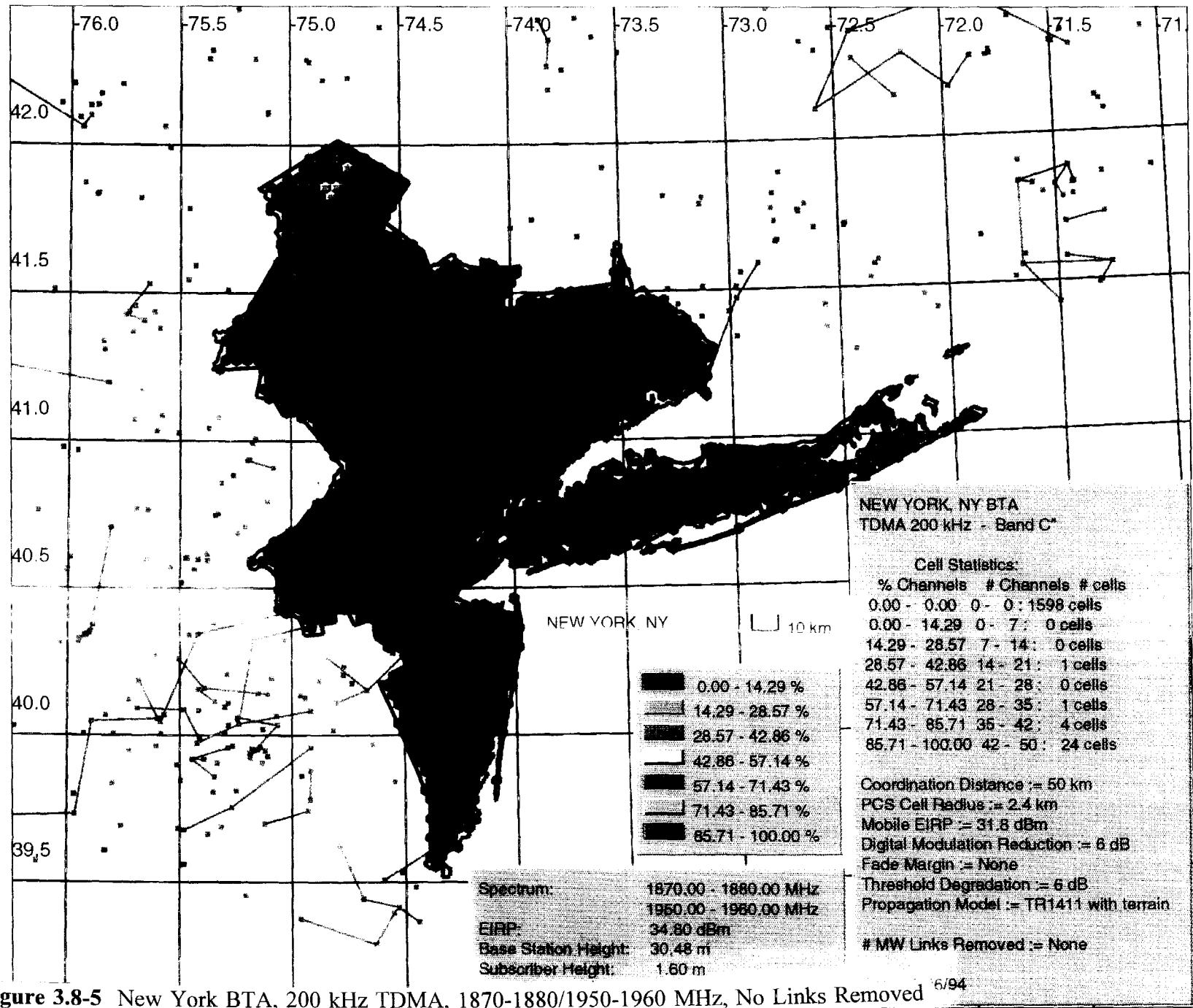


Figure 3.8-5 New York BTA, 200 kHz TDMA, 1870-1880/1950-1960 MHz, No Links Removed

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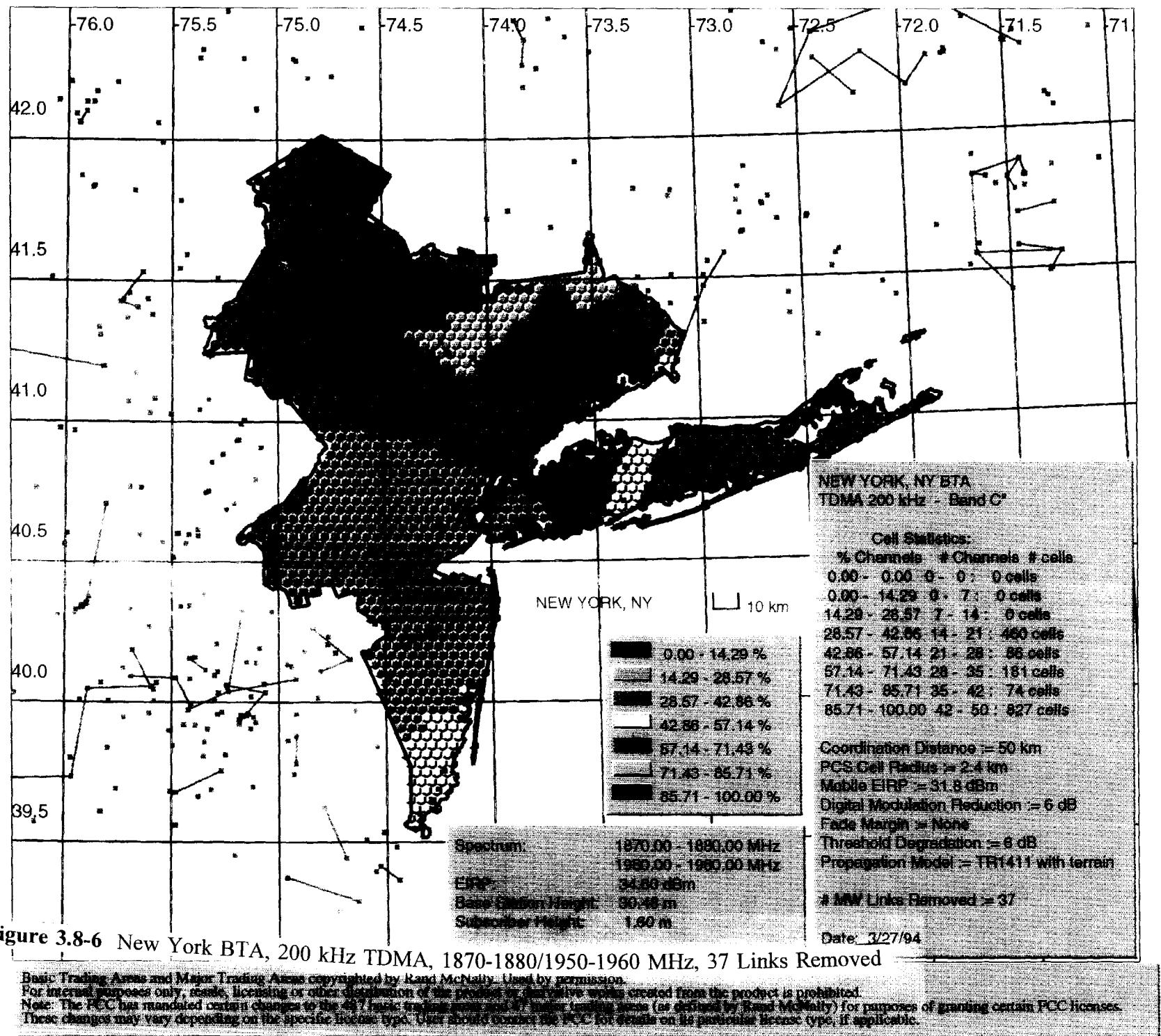


Figure 3.8-6 New York BTA, 200 kHz TDMA, 1870-1880/1950-1960 MHz, 37 Links Removed